

Amendments to the Claims:

None

Listing of Claims:

Claim 1 (original): A method for forming ultra shallow junctions, comprising:

providing a semiconductor;

implanting a dopant species into said semiconductor; and

annealing said implanted semiconductor with a ultra high temperature anneal comprising annealing temperatures from 1050°C to 1350°C.

Claim 2 (original): The method of claim 1 further comprising an amorphizing implant.

Claim 3 (original): The method of claim 2 wherein said amorphizing implant comprises implanting a species from the group consisting of silicon, germanium, antimony, indium, arsenic, neon, argon, krypton, and xenon.

Claim 4 (original): The method of claim 1 wherein said ultra high temperature anneal comprises times from 0.5 milliseconds to 3 milliseconds.

Claim 5 (original): A method for forming junction in integrated circuits, comprising:

providing a semiconductor;

forming a patterned photoresist layer on said semiconductor;

implanting dopant species into said semiconductor;

removing said patterned photoresist layer;

annealing said implanted semiconductor with a solid phase epitaxy anneal; and

annealing said implanted semiconductor with a ultra high temperature anneal comprising annealing temperatures from 1100°C to 1350°C.

Claim 6 (original): The method of claim 5 wherein said ultra high temperature anneal comprises times from 0.5 milliseconds to 3 milliseconds.

Claim 7 (original): The method of claim 6 further comprising an amorphizing implant.

Claim 8 (original): The method of claim 7 wherein said amorphizing implant comprises implanting a species from the group consisting of silicon, germanium, antimony, indium, arsenic, neon, argon, krypton, and xenon.

Claim 9 (original): A method of forming a MOS transistor, comprising:

providing a semiconductor substrate;

forming a gate dielectric layer on said semiconductor;

forming a gate electrode on said gate dielectric layer;

implanting dopant species into said semiconductor adjacent to said gate electrode;

annealing said implanted semiconductor with a solid phase epitaxy anneal at a temperature between 550°C and 950°C; and

annealing said implanted semiconductor with a ultra high temperature anneal comprising annealing temperatures from 1100°C to 1350°C.

Claim 10 (original): The method of claim 9 wherein said ultra high temperature anneal comprises times from 0.5 milliseconds to 3 milliseconds.

Claim 11 (original): The method of claim 10 further comprising an amorphizing implant performed prior to said implanting of said dopant species.

Claim 12 (original): The method of claim 11 wherein said amorphizing implant comprises implanting a species from the group consisting of silicon, germanium, antimony, indium, arsenic, neon, argon, krypton, and xenon.

Claim 13 (original): A method of forming an integrated circuit MOS transistor, comprising:

providing a semiconductor substrate;

forming a gate dielectric layer on said semiconductor;

forming a gate electrode on said gate dielectric layer;

implanting first dopant species into said semiconductor adjacent to said gate electrode;

forming sidewall structures adjacent to said gate electrode;

implanting second dopant species into said semiconductor adjacent to said sidewall structures; and

annealing said implanted semiconductor with a ultra high temperature anneal comprising annealing temperatures from 1100°C to 1350°C.

Claim 14 (original): The method of claim 13 wherein said ultra high temperature anneal comprises times from 0.5 milliseconds to 3 milliseconds.

Claim 15 (original): The method of claim 14 further comprising an amorphizing implant performed prior to said implanting of said first dopant species.

Claim 16 (original): The method of claim 15 further comprising an amorphizing implant performed prior to said implanting of said second dopant species.

Claim 17 (original): The method of claim 13 further comprising an amorphous implant performed prior to said implanting of said second dopant species.

Claim 18 (original): The method of claim 16 wherein said amorphizing implants comprises implanting a species from the group consisting of silicon, germanium, antimony, indium, arsenic, neon, argon, krypton, and xenon.